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ABSTRACT

This instructor guide for a unit on financial analysis in the PACE (Program for Acquiring Competence in Entrepreneurship) curriculum includes the full text of the student module and lesson plans, instructional suggestions, and other teacher resources. The competencies that are incorporated into this module are at Level 3 of learning--starting and managing one's own business. Included in the instructor's guide are the following: unit objectives, guidelines for using PACE, lists of teaching suggestions for each unit objective/subobjective, model assessment responses, and overview of the three levels of the PACE program. The following materials are contained in the student's guide: activities to be completed in preparation for the unit, unit objectives, student reading materials, individual and group learning activities, case study, discussion questions, assessment questions, and references. Among the topics discussed in the unit are the following: responsibilities in managing finances, financial advisors, cashflow management, financial control procedures, cashflow patterns, trouble spots, owner's equity financial statement, analysis of financial statements, financial management ratios, break-even point, and computer applications for financial management. (KC)

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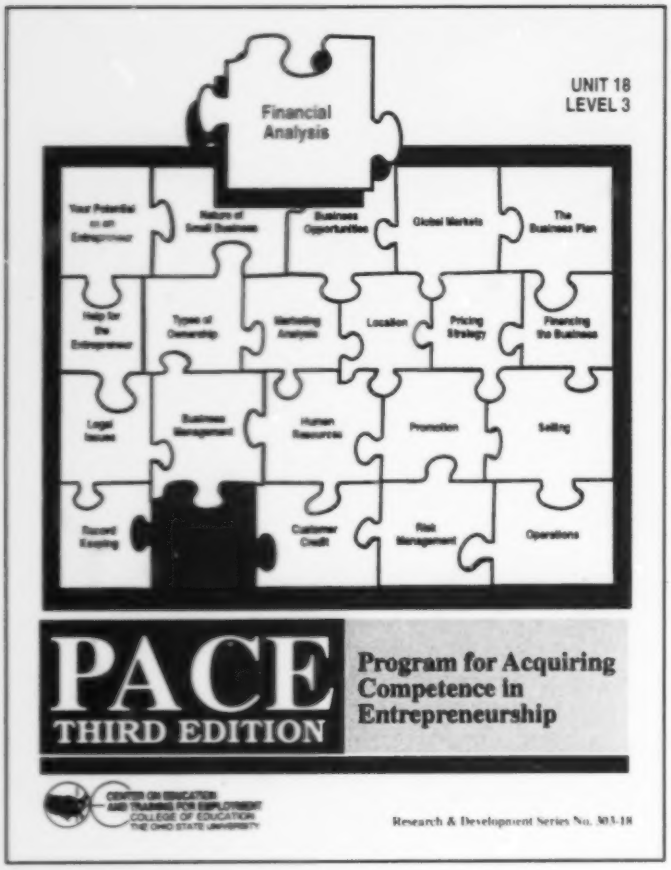

Objectives:

- Discuss the responsibilities of the entrepreneur in managing the finances.
- Select appropriate advisors to assist in your financial analysis.
- Explain the importance of cashflow management.
- Identify financial control procedures.
- Describe how to find cashflow patterns.
- Analyze trouble spots in financial management.
- Describe how to prepare an owner's equity financial statement.
- Analyze your financial statements.
- Analyze financial management ratios applicable to a small business.
- Compute and analyze break-even point.
- Review computer applications for financial management.

INSTRUCTOR GUIDE

Unit 18

Financial Analysis

Level 3

HOW TO USE PACE

- Use the objectives as a pretest. If a student is able to meet the objectives, ask him or her to read and respond to the assessment questions in the back of the module.
- Duplicate the glossary from the *Resource Guide* to use as a handout.
- Use the teaching outlines provided in the *Instructor Guide* for assistance in focusing your teaching delivery. The left side of each outline page lists objectives with the corresponding headings (margin questions) from the unit. Space is provided for you to add your own suggestions. Try to increase student involvement in as many ways as possible to foster an interactive learning process.
- When your students are ready to do the *Activities*, assist them in selecting those that you feel would be the most beneficial to their growth in entrepreneurship.
- Assess your students on the unit content when they indicate they are ready. You may choose written or verbal assessments according to the situation. Model responses are provided for each module of each unit. While these are suggested responses, others may be equally valid.

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Objectives	Teaching Suggestions
1. DISCUSS THE RESPONSIBILITIES OF THE ENTREPRENEUR IN MANAGING THE FINANCES	
What are the responsibilities of the entrepreneur in managing the finances?	Use an overhead or chalkboard to list the entrepreneur's responsibilities in successfully managing business fiances. Ask students to show how these responsibilities apply to various businesses with which they are familiar with.
2. SELECT APPROPRIATE ADVISORS TO ASSIST IN YOUR FINANCIAL ANALYSIS	
What advisors should be utilized when considering financial analysis?	Ask students to offer their opinions on the importance of using outside financial expertise. Explain how SBDC, SBA, and SCORE can help the entrepreneur in the area of financial management. Refer to the PACE Resource Guide for additional information.
3. EXPLAIN THE IMPORTANCE OF CASHFLOW MANAGEMENT	
Why is cashflow management important?	Ask students to explain the mechanics of a cashflow statement as they understand it. It is critical for students to understand the meaning of this vital financial statement and how it should be correctly developed. Highlight the concepts of undercapitalized business and identify its implication for business growth.
4. IDENTIFY FINANCIAL CONTROL PROCEDURES	
What are some financial control procedures?	Invite a local entrepreneur or accountant to speak about financial control procedures used to monitor operations in small business. Ask students to compare the procedures mentioned by the speaker with the ones listed in the unit, as well as other procedures they are acquainted with.

Objectives	Teaching Suggestions
5. DESCRIBE HOW TO FIND CASHFLOW PATTERNS	
How can a cashflow pattern be determined?	Use Figure 1 to explain how to develop and understand a cashflow statement. Ask students to try to discover patterns in cash receipts and cash disbursements from one month to another. Explain the arithmetics of obtaining end-of-month cashflow (i.e., adding cash income for the previous month to the next month's cashflow and subtract cash paid out).
6. ANALYZE TROUBLE SPOTS IN FINANCIAL MANAGEMENT	
What are signs of trouble in financial management?	Ask the guest entrepreneur or accountant to explain methods of "shooting financial management troubles." Encourage students to record these methods on note cards and to compare them against the ones presented in the text, as well against other methods with which they are familiar.
How can long-range financial needs ba managed?	Provide a list of items that are usually considered long-term financial needs for a small business (e.g., equipment and machinery, expansion needs, such as new construction, etc.). Define and explain how the concept of working capital relates to expansion and growth needs.
7. DESCRIBE HOW TO PREPARE AN OWNER'S EQUITY FINANCIAL STATEMENT	
What is an owner's equity financial statement?	Define the owner's equity financial statement and explain what entries affect this statement (i.e., net worth, withdrawals of owner's salary, additional owner's investments, etc.). Secure such a statement from a local business or use one presented in a textbook.

Objectives	Teaching Suggestions
8. ANALYZE YOUR FINANCIAL STATEMENTS	
How are financial statements analyzed?	Explain how entrepreneurs analyze balance sheets, income statements, and cashflow statements by using financial ratio analysis. Emphasize the importance of using spreadsheet software (such as Excel, Lotus, and Quatro Pro) for ratio analysis and financial projections. If such software is available, demonstrate its utility.
9. ANALYZE FINANCIAL MANAGEMENT RATIOS APPLICABLE TO A SMALL BUSINESS	
What are operating expense ratios?	Write the general formula of operating expense ratio on the chalkboard or transparency (i.e., Operating expense ratio = Operating expense/Net sales). Ask students to compute various operating rations using the income statement presented in the text (e.g., advertising expense ratio).
What is an inventory ratio?	Refer to the above suggestion. Explain why inventory turnover ratios vary across industries (for example, why grocery stores have a higher inventory turnover ratio than home appliance stores).
Why are financial ratios useful?	Use a chart to show reasons for using financial ratios.
What are key business ratios?	Use an overhead or chalkboard to summarize the four categories of financial ratios (i.e., liquidity, solvency, fund management efficiency, and profitability).
What is the current ratio?	Define current ratio and working capital. Help students understand and interpret these formulas. Encourage students to memorize formulas only after thoroughly understanding the concepts and being able to apply numerical examples.
What is an acid-test ratio?	Refer to the above suggestion.

Objectives	Teaching Suggestions
What is a debt-to-tangible-net-worth ratio?	Introduce the concept of solvency. Use simple examples to emphasize how solvency ratios measure the relationship between funds borrowed by the business (debt), and funds owned by the business. Define the debt-to-tangible-net-worth ratio and help students work out computations on their own.
What is net income—to net sales ratio?	Refer to the above suggestion.
10. COMPUTE AND ANALYZE BREAK-EVEN POINT?	
What are break-even analysis components?	Define the concept of break-even point, fixed and variable expenses. Also, define and give examples of semivariable expenses.
How is a break-even point computed?	Use several numerical examples to apply the break-even point formula.
What information is obtained from break-even analysis?	Create a chart to show the type of information reflected in the break-even analysis.
11. REVIEW COMPUTER APPLICATIONS FOR FINANCIAL MANAGEMENT	
How can computer applications assist in financial analysis and management?	Ask students to explain how computer systems generate costs savings. Emphasize the types of costs incurred by businesses when computer systems are introduced in daily operations. Demonstrate any financial software that's available.

MODEL ASSESSMENT RESPONSES

1. The key responsibilities of the entrepreneurs include: (1) properly balance investments in assets, (2) accurately determine cashflow needs, (3) manage short-term and long-term debt, (4) secure sound credit terms and use sound practices for selling on credit, (5) evaluate the return on investment, etc. All of these responsibilities are important for small business success. Failure to efficiently manage any of the above mentioned areas could surely lead to business failure.

2. When starting a business, entrepreneurs may use advice offered by SBDC, SCORE, or local law and accounting firms which specialize in the financial management. In the first years of operations, entrepreneurs need to develop a close relationship with their accountants in order to refine the financial procedures of business. In addition, entrepreneurs should get involved in activities organized by the local chamber of commerce, SBDC, and other local small business organizations. As the business matures and grows, more sophisticated financial advisors from law and accounting firms may be needed.

3. Improper cash management may create problems in securing work capital for growth and expansion, delay payment of bills to creditors, delay the process of receiving payments, and may even result in bankruptcy if creditors are not paid in time.

4. Financial control procedures include: (1) handling cash as though it belonged to somebody else, (2) keeping personal cash separate from business cash, (3) recording all cash receipts and disbursements, (4) using a bank account to deposit all cash receipts, (5) never making cash disbursements out of daily cash receipts, (6) depositing cash receipts daily, (7) paying all bills by checks, (8) making disbursements correctly, and (9) revising financial statements periodically.

5. Patterns to look for in a monthly cashflow include cash receipt and disbursement patterns (such as abrupt decreases, cyclical patterns), as well as end-of-month trends.

6. Signs of financial management troubles include: (1) expenses increasing at a faster rate than gross profit, (2) inadequate cash at the beginning of the month, (3) overexpansion of business with inadequate capitalization, (4) excessively high accounts receivable at the end of the month, and (5) cash shortage due to capital expenditures.

7. An owner's equity financial statement is prepared by recording changes in the owner's net worth (i.e., funds invested by the owner, withdrawal of owner's salary, depreciation of fixed assets, etc.).

8. Financial management ratio analysis provides information on the business performance from liquidity, solvency, funds management and profitability standpoint. These ratios help entrepreneurs assess the current condition of their business and make sound management decisions.

9. To compute the break-even point, one divides the total fixed costs by the difference between the unit total sales price and the unit variable cost.

PACE
THIRD EDITION

Program for Acquiring Competence in Entrepreneurship

Incorporates the needed competencies for creating and operating a small business at three levels of learning, with experiences and outcomes becoming progressively more advanced.

Level 1 — Understanding the creation and operation of a business.
Level 2 — Planning for a business in your future.
Level 3 — Starting and managing your own business.

Self-contained **Student Modules** include: specific objectives, questions supporting the objectives, complete content in form of answers to the questions, case studies, individual activities, group activities, module assessment references. **Instructor Guides** include the full text of each student module and lesson plans, instructional suggestions, and other resources. **PACE,Third Edition, Resource Guide** includes teaching strategies, references, glossary of terms, and a directory of entrepreneurship assistance organizations.

For information on PACE or to order, contact the Publications Department at the
Center on Education and Training for Employment, 1900 Kenny Road, Columbus, Ohio 43210-1090
(614) 292-4353, (800) 848-4815.

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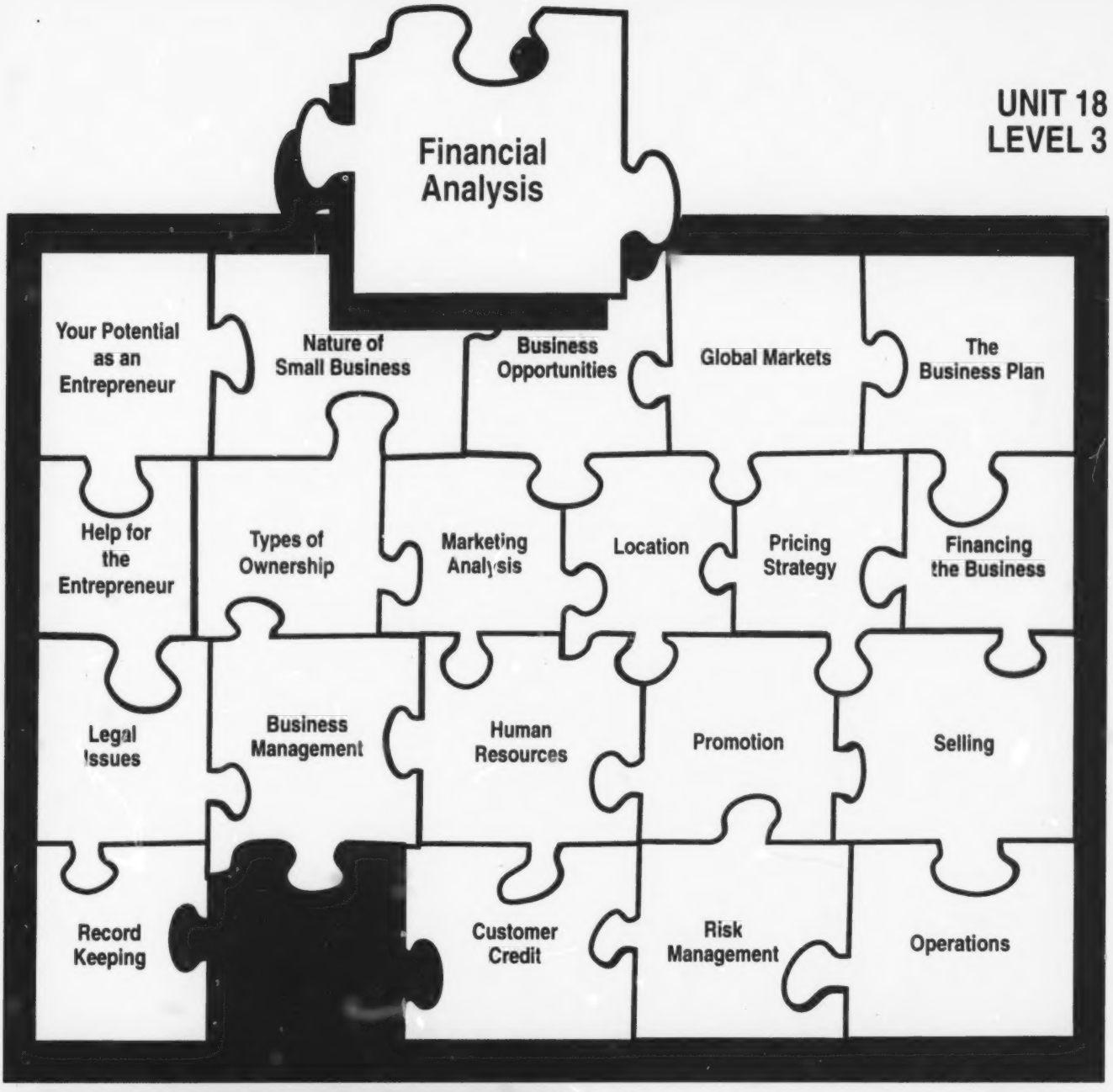
UNIT 18
LEVEL 3



PACE
THIRD EDITION

Program for Acquiring Competence in Entrepreneurship

CENTER ON EDUCATION AND TRAINING FOR EMPLOYMENT
COLLEGE OF EDUCATION
THE OHIO STATE UNIVERSITY

Research & Development Series No. 303-18

FINANCIAL ANALYSIS

BEFORE YOU BEGIN . . .

1. Consult the *Resource Guide* for instructions if this is your first PACE unit.

2. Read What are the Objectives for this Unit on the following page. If you think you can meet these objectives now, consult your instructor.

3. These objectives were met at Level 1 and Level 2:

   Level 1

   - Discuss the importance of financial management.
   - Define accounting terms.
   - Describe the tools for financial analysis.
   - Identify ways to analyze your business finances.

   Level 2

   - Discuss the entrepreneur's role in managing finances.
   - Explain how to prepare a balance sheet.
   - Explain how to prepare an income statement.
   - Explain how to develop a cashflow projection.
   - Explain how to determine the break-even point.
   - Identify the use of advisors in the financial analysis decisions.
   - Discuss the use of computers in financial analysis.

4. Look for these business terms as you read this unit. If you need help with the meanings, ask your instructor for a copy of the PACE Glossary contained in the *Resource Guide*.

   Net income to net sales ratio
   Net sales to working capital
   Operating expense ratio
   Owner's equity financial statement
   Paid-out voucher
   Petty-cash fund
   Semivariable costs
   Solvency
   Undercapitalized business
   Variable costs

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FINANCIAL ANALYSIS

WHAT ARE THE OBJECTIVES FOR THIS UNIT?

Upon completion of this unit you will be able to—

- discuss the responsibilities of the entrepreneur in managing the finances,
- analyze your financial statements,
- select appropriate advisors to assist in your financial analysis,
- explain the importance of cashflow management,
- identify financial control procedures,
- describe how to find cash flow patterns,
- analyze trouble spots in financial management,
- describe how to prepare an owner's equity financial statement,
- analyze financial management ratios applicable to a small business,
- compute and analyze break-even point, and
- review computer applications for financial management.

WHAT IS THIS UNIT ABOUT?

To operate your business successfully, you will have to be able to use financial management techniques. Two key concepts of financial management are planning and control. A command of the tools and techniques of financial management will help you exercise these crucial tasks.

WHAT ARE THE RESPONSIBILITIES OF THE ENTREPRENEUR IN MANAGING THE FINANCES?

The requirements for success in financial management include the following:

- Proper balance of investments in assets such as a building, fixtures, and other equipment

- Accurate determination of cash flow needs
- Sound management of both short-term and long-term debts
- Sound credit terms and practices for selling on credit
- A reasonable appraisal of whether or not you are realizing an adequate rate of return on your investment, based on the amount invested in your business and the time you devote to it

This unit assumes that you have an understanding of the basic components of and relationship between the items in a balance sheet, income statement, and cashflow forecast. A balance sheet is a periodic report that identifies various assets and liabilities. The net worth or equity of the owner or stockholders is determined from the balance sheet formula: assets minus liabilities equals net worth (equity). The income statement identifies revenues and expenses to determine a profit or loss. Detailed explanations of both statements are available in Levels 1 and 2 of this unit. Ask your instructor for additional information.

WHAT ADVISORS SHOULD BE UTILIZED WHEN CONSIDERING FINANCIAL ANALYSIS DECISIONS?

Advisors may be employed at several stages of the business growth and development.

In the pre-start-up stage, you need an objective outside party to help you structure the methods you use to finance your business and to assess the quality of the financial assumptions upon which you are basing your first years forecasts.

Good prospects for this type of advise include the local SBDC (Small Business Development Center), SCORE (Service Core of Retired Executives), or a local accountant experienced in the industry you will be entering.

During the first several years of the business operations, an accountant to refine your financial management procedures and to learn to spot specific trends within your financial statements. You may also want to participate in local "roundtables" sponsored by your local chamber of commerce for the purpose of acquiring insights from other business owners. The SBDC office can also give you a "second opinion" or help you monitor your progress in maintaining control over your working capital accounts.

As the business matures, you will want to utilize more specialized advisors from both law and accounting to plan for succession, and to refine your strategic plan. During this stage you will probably begin to rely on "in-house" staff to provide significant advice on financial management. You may also find that having a qualified board of directors will improve your business performance.

WHY IS CASH FLOW MANAGEMENT IMPORTANT?

Cash is a problem for many small businesses. Comments, such as "I never seem to have enough cash. Often I have to slight one creditor to pay another" are not uncommon for owners of small businesses.

The secret of controlling cash can be stated in one word—balance. A firm should aim to have just the right amount of cash on hand—never too little and never too much for its needs.

When a business has permanent pressure on cash, it may be undercapitalized. A business would be undercapitalized if it does not have enough funds to pay current operating expenses or to purchase needed inventory or equipment. Such a chronic shortage of cash can lead to disaster because the owner can't pay the firm's bills when they are due. Or the firm may go broke because its owner lacks the financial resources to meet the sudden demands of new competition.

Often more capital is needed because the present investment does not generate enough cash to keep the business financially healthy.

Many businesses that grow rapidly experience critical (often fatal) cash shortages brought about because their collections of receivables do not grow as fast as payments demanded by creditors.

Control of cash involves two elements. The first is planning for your cash needs in advance. Bankers are going to look more favorably on a request for a line of credit up to 12 months prior to your need than such a request 3 days before you have to meet payroll in a given month. The second involves developing effective controls regarding how to use the cash that flows through your business. Financial controls must be developed to govern the day-to-day and month-by-month accounting of your funds. An accounting system tells you how much money you have available, how much you need to pay your bills, and whether there is either a deficit to be made up or a surplus to be invested.

WHAT ARE SOME FINANCIAL CONTROL PROCEDURES?

Keeping track of the cash received by your business requires two things:

- Procedures and records that will help safeguard the funds
- Attention to the details necessary to keep those procedures working

These controls should be written and each employee should be rigorously trained in their use.

The following guidelines may be helpful as you assess your situation. Your goal should be to keep good records and to control your cash.

- Handle business cash as though it belonged to someone else. This is vital to the success of your business, especially when your cash is limited.

- Keep personal cash separate from cash generated by you business. One way to do this is by paying yourself a weekly or monthly salary.

- Keep a record of all incoming cash. The record can be simple, showing (1) the amount of cash, (2) the date received, and (3) the source.

- Use a bank account for your business funds.

- Deposit all cash receipts in your firm's bank account.

- Never make a disbursement out of your daily cash receipts.

- Deposit each day's cash receipts on a daily basis.

- Pay all bills, if possible, with checks. Checks provide a record and serve as a control.

- Use a *petty cash* fund if you need to pay some small bills in coin and currency. This fund should be a fixed amount and balanced regularly. Get a properly signed receipt when making a payment from the petty cash fund. Reimburse your petty cash fund with a check that notes, for example, "to cover cash used in paying receipts numbered 21, 22, and 23."

- Make disbursements only if you have (1) a supplier's invoice or (2) a receipted *paid-out voucher* that is dated and signed by the person to whom you give the check (or cash if it's a petty cash expense). Keep your records simple. In a busy schedule, you will be more apt to refer to your records if they are easy to use. Regularly have your procedures and controls checked by your accountant or an employee to see that they are working effectively.

- Establish a regular time to review your financial documents, reports, and statements. This will be daily for some records and weekly or monthly for others. Develop a checklist of questions to use as you review each record.

HOW CAN A CASHFLOW PATTERN BE DETERMINED?

Financial control can provide you with important information. Your concern is keeping your business healthy by (1) avoiding a "cash-out" situation where you cannot meet your obligations, (2) obtaining funds when there are anticipated cash deficits and (3) managing cash surpluses wisely. These dynamic situations change from month to month.

Before you can use your cash balances efficiently, you must know your firm's cashflow pattern. In addition to the basic questions: How much cash comes into your business each month?, How much goes out?, Is there any left at the end of the month?, and If so, how much?, you need to develop a sensitivity to patterns such as seasonal trends, expense creep, changing collection patterns, unexplained inventory growth, and so forth.

You can get answers to these questions by looking at present and past records that give you "book control" of cash. See what they tell you about your past cashflow pattern. You'll need to use a budgeting technique that compares planned with actual levels for each item. You may want to ask your accountant or bookkeeper to work out the details for you and you should have these procedures reviewed by an independent outside advisor.

One simple budget technique involves:

(1) adding estimates of income expected during the next month to the cash balance at the beginning of the present month, and (2) subtracting estimates of expenses for the next month. When this is done for twelve months, you know expected cash balances for each month.

This information will help you to forecast the future. Review your cash records for last year to find, on a monthly basis—

- the origin of your cash,
- where it went, and
- how much was left at the end of each month.

Figure 1 describes a typical example with the accounting year starting with January. Add the beginning cash balance on hand in January (0) to the following income items:

- All payments from customers both against accounts receivable and as cash sales
- Any money received as a loan from a bank or other source
- Additional capital invested in the business
- All payments received from sale of fixed assets

The January income items amounted to a total of $44,000.

The next step is to subtract January expense items from the $44,000. Subtract the following:

- All payments made against accounts payable
- All expenses paid (not merely accrued)
- All cash withdrawals by the owner
- All repayment of loans
- All payments for fixed assets

Suppose that these expenses totaled $47,956. Thus, your cash balance at the end of last January was ($3,956) (i.e., $44,000 minus $47,956).

This $3,956 was your negative cash balance at the start of last February. You need to plan for a target amount that you would like to have on hand at the end of each month to cover unanticipated changes in your collections or expenses.

CASH BUDGET	Nov Actual	Dec Actual	Jan F-cast	Feb F-cast	Mar F-cast	Apr F-cast	May F-cast	Jun F-cast	Jul F-cast	Aug F-cast	Sept F-cast	Oct F-cast	Nov F-cast	Dec F-cast
Sales	40,000	48,000	57,600	69,120	82,944	99,533	119,439	143,327	171,993	206,391	247,669	297,203	356,644	427,973
Cash receipts:														
30 days after sale (50%)			24,000	28,800	34,560	41,472	49,766	59,720	71,664	85,996	103,196	123,835	148,602	178,322
60 days after sale (50%)			20,000	24,000	28,800	34,560	41,472	49,766	59,720	71,664	85,996	103,196	123,835	148,602
Total cash receipts			44,000	52,800	63,360	76,032	91,238	109,486	131,383	157,660	189,192	227,030	272,436	326,924
Cash disbursements:														
Purchases (65%)			37,440	44,928	53,914	64,696	77,636	93,163	111,795	134,154	160,985	193,182	231,819	278,182
Selling and Administrative expenses (fixed			10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
at $10,000)			516	505	534	476	457	476	407	374	376	287	230	204
Interest			0	0	5,000	0	0	5,000	0	0	5,000	0	0	5,000
Taxes			0	0	0	0	0	0	0	0	0	20,000	0	0
Capital expenditures			0	0	0	0	0	0	0	0	0	0	0	0
Dividends														
Total cash disbursements			47,956	55,433	69,448	75,172	88,093	108,639	122,202	144,528	176,362	223,469	242,049	293,386
Cash increase or (decrease)			(3,956)	(2,633)	(6,088)	860	3,146	847	9,181	13,132	12,830	3,561	30,388	33,537
Beginning cash balance		10,000												
Ending cash balance (if no financing)			(3,956)	(2,633)	(6,088)	860	3,146	847	9,181	13,132	12,830	3,561	30,388	33,537
Desired minimum cash level			10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Short term loan (or surplus available for investment)			13,956	12,633	16,088	9,140	6,854	9,153	819	(3,132)	(2,830)	6,439	(20,388)	(23,537)

Figure 7. Cash forecast

Follow the example to understand the process of adding cash income for the next 2 months and subtracting cash paid out in order to get your cash balance at the end of each month.

Notice the cash deficit that develops in March. This is caused by the fact that this company's accounts receivable from credit sales is growing rapidly as sales increase, but the company still must pay for inventory and selling expenses in the month they are incurred.

Do the same for each of the 12 months in that year. In addition, fill in your own estimate of a desirable cash balance and any short-term loans needed to maintain this balance. Do you anticipate having any funds to invest?

As a final step, (1) underestimate cash receipts by 5 percent and (2) overestimate cash payments by 5 percent. This provides a 10 percent margin for unforeseen deficits.

WHAT ARE TROUBLE SIGNS IN FINANCIAL MANAGEMENT?

Determining last year's cash balances by months should give you an idea of the cash-flow pattern for your business. However, before trying to predict your cash balances for each month of next year, look again at your records.

This review is to check for trouble spots in last year's operation. For example, were there months when—

- expenses were greater than the gross profits you made from sales?
- cash was inadequate at the start of the month?
- the business overexpanded without new capital being made available?
- excessively high accounts receivable were not discounted at the bank?
- cash was reduced below an adequate balance because you had to buy fixed assets—such as new equipment—that are recoverable only through depreciation?

Some of these conditions can be caused by seasonal fluctuations. One way to avoid them is through short-term borrowing. It is crucial to discuss your anticipated cash needs with your banker as you develop and/or revise your annual financial plan.

HOW CAN LONG-RANGE FINANCIAL NEEDS BE MANAGED?

Before you start to plan how you will improve your control of future cash, take time to list the long-range needs of your firm. List items such as—

- equipment, tools, and other fixed or depreciating assets that will need to be replaced,

- additional equipment or other fixed assets that you may need in order to compete successfully,

- remodeling or expansion of your facilities that may be needed to increase sales, and

- increased working capital needs brought about by planned growth and the need to finance inventory and related costs.

You need to have an idea of these long-range requirements so you can provide for them without depleting your cash. Some retailers fail, for example, to depreciate their fixed assets and set up financial reserves for their replacement. Thus, they must use their cash balances—funds for paying the firm's day-to-day bills—to pay for the replacement of worn-out equipment.

Such a situation can be avoided by planning—that is, by trying to chart the course of the business for the next 1-5 years. In addition to budgeting for the short-range needs, as will be discussed in the next section, you should plan tentative for handling your firm's long-range needs.

WHAT IS AN OWNER'S FINANCIAL STATEMENT?

An important financial statement related to cashflow and financial management is *change in the owner's equity schedule*. The change in the owner's equity statement reflects those items that change the owner's net worth (the amount of capital or funds invested by the owner of the business). It includes the owner's withdrawal (salary).

Other adjustments indicated on this financial statement are additional investments by the owner of the business or possibly an adjustment for the depreciation value of equipment and building. It is important to remember that additional capital may be needed to keep the business in operation. These changes will be reflected in the change in owner's equity financial statements. They should also be considered as an integral part of the firm's operating records.

HOW ARE FINANCIAL STATEMENTS ANALYZED?

Various financial reports can be helpful in financial management. The principal ones are the balance sheet, income statement, and cashflow statement. They are the basis for financial analyses of your firm. Financial statement analysis is a control method in which information from both the balance sheet and income statements are examined and relationships among items are established and compared.

Information from current and projected statements can be analyzed in the same way. These comparative measures (stated as ratios) answer questions such as Can the business pay its bills on time?, and Is the money invested in the firm bringing you as much profit as alternative investments could? Careful financial analyses not only help you in assessing the firm's financial condition, but also help you in making sound management decisions.

As you continue working with financial information in this unit, keep in mind the fact that today many small business owners use microcomputers to help them manage finances. A section on microcomputers in business is included at the end of this unit and each of the worksheets presented in your case study are available from your instructor in the form of "electronic" spreadsheets as well.

WHAT ARE OPERATING EXPENSE RATIOS?

An *operating expense ratio* helps business owners gain valuable management information by dividing each operating expense separately, such as salaries or wages, by net sales. From the resulting information, owners can evaluate the relationship of various expenses to net sales. Trends of specific expenses to net sales can be analyzed in terms of monthly or seasonal changes.

Another name for this technique is the *Common Size Statement*, examples of which are provided in Figures 2 and 3. Note that for a balance sheet, the common size line items for each asset and liability are divided by the total assets.

Operating Expense Ratio	= $\frac{\text{Any Operating Expense}}{\text{Net Sales}}$

Figure 2. Operating expense ratio formula

WHAT IS AN INVENTORY RATIO?

The *inventory ratio* compares *costs of goods sold* to *average inventory*. The average inventory is the amount of inventory a business normally has in stock at a certain time. It is often computed by averaging the beginning and ending inventory (see Figure 5). An *inventory turn* is how many times the average inventory on hand is sold in a given period of time. This ratio indicates how fast merchandise is being sold. The formula showing inventory turnover is:

Average Inventory =	$\frac{\text{Beginning inventory + Ending inventory}}{2}$

Figure 5. Average inventory formula

Inventory Turnover	=	$\frac{\text{Total Revenue}}{\text{Average Inventory}}$

Figure 6. Inventory turnover formula

A study of turnover rates in similar businesses will help you determine the appropriate rate for your business. Usually, a fairly high ratio indicates that your inventory is current and saleable and that your firm has good pricing policies. An extremely high ratio may indicate that your inventory turns over too often—this may lead to shortages and customer dissatisfaction. Note that inventory turnover is sometimes calculated as cost of goods sold divided by average inventory.

Jones Gift Shop
Projected Balance Sheet
(In thousands as of . . .)

ASSETS	Year I Common Size	Opening Day	End of Year 1	End of Year 2	End of Year 3
Cash	16.53	3,000	2,000	2,000	4,900
Inventory	41.32	4,000	5,000	6,000	7,000
Accounts Receivable	21.49	0	2,600	2,900	3,000
Total Current Assets	79.34	7,000	9,600	10,900	14,900
Equipment	12.40	2,000	1,500	1,000	500
Building	0.00				
Other (Franchise Fee)	8.26	1,000	1,000	1,000	1,000
Total Fixed and Other	20.66	3,000	2,500	2,000	1,500
Total Assets	100.00	10,000	12,100	12,900	16,400
LIABILITIES					
Accounts Payable	30.58	3,000	3,700	4,000	4,500
Other Debts Due within 1 year	0.00	0	0	0	0
Total Current Liabilities	30.58	3,000	3,700	4,000	4,500
Long-Term Debt	0.00	0	0	0	0
Notes Payable to Others	4.13	1,000	500	0	0
Total Long-Term Debt	4.13	1,000	500	0	0
Total Liabilities	34.71	4,000	4,200	4,000	4,500
Owner's Equity	57.02	6,000	6,900	8,900	11,900
Total Liabilities & Owners Equity	91.74	10,000	11,100	12,900	16,400
RATIOS	Industry Average			Actual	
Current Ratio	———		2.59	2.72	3.31
Acid-Test Ratio	———		1.24	1.22	1.75
Debt to Tangible Net Worth	———		0.71	0.51	0.41

Figure 3. Balance sheet and common-sizing

Jones Gift Shop Projected Income Statement (In thousands for the period . . .)				
	Common Size	First Year	Second Year	Third Year
Gross Sales	107.14	22,500	30,000	34,000
Less: Returns-Allowances	7.14	1,500	2,000	2,500
Net Sales	100.00	21,000	28,000	31,500
Cost of Goods Sold				
Beginning Inventory	19.05	4,000	5,000	6,000
Plus Purchases-Freight	47.62	10,000	14,000	16,000
Minus Ending Inventory	23.81	5,000	6,000	7,000
Total Cost of Goods Sold	42.86	9,000	13,000	15,000
GROSS PROFIT	57.14	12,000	15,000	16,500
EXPENSES				
Selling Expenses:				
Sales Force Payroll	11.90	2,500	3,500	4,000
Commissions	0.0	0	500	750
Advertising	14.29	3,000	2,500	2,000
Operating Expenses:				
Utilities	4.29	900	1,400	1,650
Rent	17.14	3,600	4,000	4,250
Other	2.86	600	600	600
Total Expenses	50.48	10,600	12,500	13,250
NET PROFIT BEFORE TAXES	6.67	1,400	2,500	3,250
Income Taxes	0.00	0	0	250
NET PROFIT AFTER TAXES	6.67	1,400	2,500	3,000
RATIOS	Industry Average			
Inventory Turnover		5.00	5.45	5.23
Return on Investment		0.20	0.28	0.25

Figure 4. Income statement and common-sizing

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WHY ARE FINANCIAL RATIOS USEFUL?

Financial ratios make it possible for you to compare your firm's performance with the average performance of similar businesses as well as your own performance trends over time. However, there are certain things you should remember—

- All businesses are not exactly comparable. There are different ways of computing and recording financial data on financial statements. Therefore, there may not be exact points of comparison; that is, figures for you business may not exactly compare to those for a business whose figures are computed or recorded in a different manner.

- Ratios are computed for specific dates. Unless your financial statements are prepared often, the most recent data for your firm may be wasted by not being used for ratio analysis.

- Financial statements show what has happened in the past. One of the best uses of a ratio is to give you clues about future problems and opportunities. Since ratios are based on past performance, you will need your management skills to predict the future.

WHAT ARE THE KEY BUSINESS RATIOS?

A number of ratios are compiled for the various types of industry and size categories for businesses and are readily available at public libraries. Sources include Dun and Bradstreet and Robert Morris Statement studies. Ratios are usually divided into categories to facilitate analysis, (e.g., solvency, efficiency, and profitability).

Several "key" business ratios discussed below include the following:

Liquidity

- Current ratio

- Acid-test ratio

Solvency

- Total liabilities to tangible net worth

Efficiency Funds Management

- Inventory ratio

- Sales to working capital

Profitability

- Return on sales

- Return on investment

WHAT IS THE CURRENT RATIO?

The *current ratio* is one of the most commonly used measures of a firm's financial strength. The question it answers is Does your firm have enough current assets to meet its current debts with a margin of safety for

possible losses (such as inventory pilferage or uncollectible accounts)?

The current ratio is current assets divided by current liabilities. The ratio should be at least two to one, assets to liabilities. This gives an ample margin for eventual payment of current debts. Compute the current ratio by using this formula:

Current Ratio	= Current Assets / Current Liabilities
and is expressed as "times"	

Figure 7. Current ratio formula

There is a difference between *current ratio* and *working capital.* Working capital represents the amount of current assets minus the amount of current liabilities; in other words, the cash that is available for discretionary use. When computing working capital, remember that your inventory may be highly seasonal, thus making it easy to overstate your working capital. Usually your liabilities are items due within 1 year. Payment cannot be postponed. It is your current assets that are subject to analysis. Examine them carefully before computing the final figure.

If a substantial amount of your working capital is tied up in accounts receivable, you may want to consider accepting national and bank credit card purchases if you are not doing so. This would partially reduce your accounts receivable. However, there is usually a 3 to 5 percent charge when you use a national bank credit card systems.

This type of policy change on your part is easily incorporated into an computerized spreadsheet to predict its impact on your operations and performance.

WHAT IS AN ACID-TEST RATIO?

A more accurate ratio to measure the debt-paying ability of a business is the *acid-test ratio.* The acid-test ratio (quick ratio) uses only cash, accounts receivable, and "near" cash marketable securities as current assets. In other words, inventory has been removed from the current assets and the ratio calculated is the adjusted current ratio. This ratio should be one to one or better. When a business has 1.0 or higher acid-test ratio it is said to be "liquid" (this is a liquidity measure).

The **acid-test ratio** is computed using this formula:

Acid-Test Ratio	= (Cash + Receivables + Government Securities) / Current Liabilities
and is expressed as "times"	

Figure 8. Acid-test ratio formula

This ratio will show if you have enough in cash and accounts receivable to pay all your current liabilities at any one time. It answers the question If all cash income from sales were to stop, could the firm meet its current debts with readily available funds?

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WHAT IS A DEBT-TO-TANGIBLE-NET-WORTH RATIO?

The *debt-to-tangible-net-worth ratio* is a measure of the business's solvency. *Solvency* describes the firm's ability to meet its debt obligations. In fact, the debt-to-tangible-net-worth ratio shows the relationship between borrowed funds and funds owned by the entrepreneur. Debt, of course, means *all* debts, current and long-term. Tangible net worth is the worth of a business minus any intangible assets such as goodwill, trademarks, patents, copyrights, or franchise fees that have an indeterminable value. Goodwill, for example, is the value of earning power acquired over a period of time. For a new business, its value is especially vague; it should not be included in a ratio that compares what the firm owes to what it owns.

If the ratio of debt to tangible net worth is greater than one to one, then the business is undercapitalized. Debt should be reduced or additional capital should be invested. A lender, such as a bank, will usually think it unwise to lend money to a firm whose debt exceeds the net worth.

To determine the debt-to-tangible-net-worth ratio, use this formula:

Debt-to-Tangible-Net-Worth	= Liabilities / Tangible Net Worth
and is expressed in terms of percent (%)	

Figure 9. Debt-to-tangible-net-worth formula

WHAT IS A NET-SALES-TO-WORKING-CAPITAL RATIO?

A *net-sales-to-working-capital ratio* shows how many dollars of sales the business makes for every dollar in working capital owned. A low ratio may indicate that working capital is not being used efficiently to generate sales. On the other hand, an extremely high ratio may signal that working capital is not sufficient for maintaining high sales volume. This ratio is subject to seasonal sales changes; evaluate it accordingly. Comparisons of similar sales periods in past years are helpful in analyzing this ratio.

To determine the net-sales-to-working-capital ratio, use this formula:

Net-Sales-to-Working-Capital	= Net Sales / Current Assets - Current Liabilities (Working Capital)
and is expresses as "times"	

Figure 10. Net-sales-to-working-capital formula

WHAT IS A NET-INCOME-TO-NET-SALES RATIO?

A measure of profitability, *a net-income-to-net-sales ratio,* shows how much net income, or net profit, comes from every dollar of net sales. It indicates the operating efficiency of the business. This ratio can signal increasing expenses; thus it should be reviewed frequently. It is perhaps the most important ratio for a new business owner to consider.

To determine the net-income-to-net-sales ratio, use the following formula:

Net-Income-to-Net-Sales	=	$\frac{\text{Net Income}}{\text{Net Sales}}$
and is expressed as percent (%)		

Figure 11. Net-income-to-net-sales formula

WHAT ARE COMPONENTS OF THE BREAK-EVEN ANALYSIS?

Break-even analysis describes the *level of sales where total costs equal total revenue.* The first two items to be calculated are the fixed and variable costs. *Fixed costs* do not vary with the level of business activity (over the short run). Examples include administrative salaries, property insurance, depreciation of equipment, and rent.

Variable costs vary directly with the volume of activity. Direct labor and materials are examples. They double if production doubles, and drop to zero if production is zero.

Semivariable costs change with the level of business activity, but not in direct proportion. Office equipment or supervisors' salaries might be examples of semivariable costs. Such costs are usually about the same regardless of the level of output.

HOW IS A BREAK-EVEN POINT COMPUTED?

Computing the break-even point is one technique to determine when your business begins to make a profit. The break-even point tells how much business a firm needs to break even, that is, to operate with neither a profit nor a loss.

To find the break-even point, first determine the fixed costs and variable costs. Once these have been calculated, the following formula can be used to find the break-even point or volume of business:

The difference between selling price per unit and variable cost per unit is known as the unit *contribution margin.*

Break-Even Point	=	$\frac{\text{Total Fixed Cost}}{\text{Selling Price - Variable Cost (Per Unit)}}$

Figure 12. Break-even point formula

For example, assume that your total fixed costs are $15,000. You are selling a product for $100 a unit. The variable cost per unit is $25. In order to break even, you need to sell 200 units.

Break-Even Point =	$\frac{\$15{,}000}{\$100 - \$25}$	= 200 Units

Figure 13. Break-even point computation

The break-even point in terms of total sales is found by multiplying 200 by the sales price per unit.

Thus, if you sell less than 200 units at these costs, you will have a loss. Of course, you will want to do better than break even. If you want to make a profit, you will have to sell more than 200 units at these costs.

WHAT INFORMATION IS OBTAINED FROM BREAK-EVEN ANALYSIS?

Break-even analysis helps compare cost to profits at different volumes of sales. You can use break-even analysis to see how profitable different items are in a line of products that you sell. It can answer such questions as Which items are most profitable?, Which are least profitable?, Have any items passed their popularity peaks (shown decreasing profits)?, and How many units of a new product must be sold before it begins to bring in a profit?

A break-even chart shows visually the relationship of costs to profits at different sales volumes. Figure 14 is a break-even chart showing the break-even point and also the profits and losses for other volumes of sales. It is plotted for a manufacturing company with these costs for one of its products:

- Total fixed costs = $100,000
- Variable costs = $50 per unit
- Selling price = $100 per unit

Figure 2 showed that profits depend on the number of units sold only when the price and cost patterns do not change. Each of the factors that affect profit can be varied. If you reduce fixed costs, you would be able to lower the break-even point. If you could reduce variable costs, this would cause the total cost line to rise rapidly. You could also raise or lower prices. An increase in price would lower the break-even point. An inventor once said that if he could only sell one of his inventions for $500,000, he would make a tidy profit.

HOW CAN COMPUTER APPLICATIONS ASSIST IN FINANCIAL ANALYSIS AND MANAGEMENT?

Modern computer-based accounting packages have the capability to automatically produce all the required ratio or common size statements useful for analysis. It also automates several common management chores such as accounts receivable, accounts payable, and inventory management. In addition, these systems can output data in the forms required by the common financial spreadsheet programs for further analysis.

Financial spreadsheets allow you to prepare many different versions of your forecasts to suit different initial conditions or changes in your business environment. These programs are fairly elementary to use because they use the traditional rows and columns format developed to record and analyze accounting information.

A wide variety of computer software has been designed specifically to assist you in carrying out the types of financial analysis described in this unit. Once you have computerized your financial record keeping systems by installing a computer based

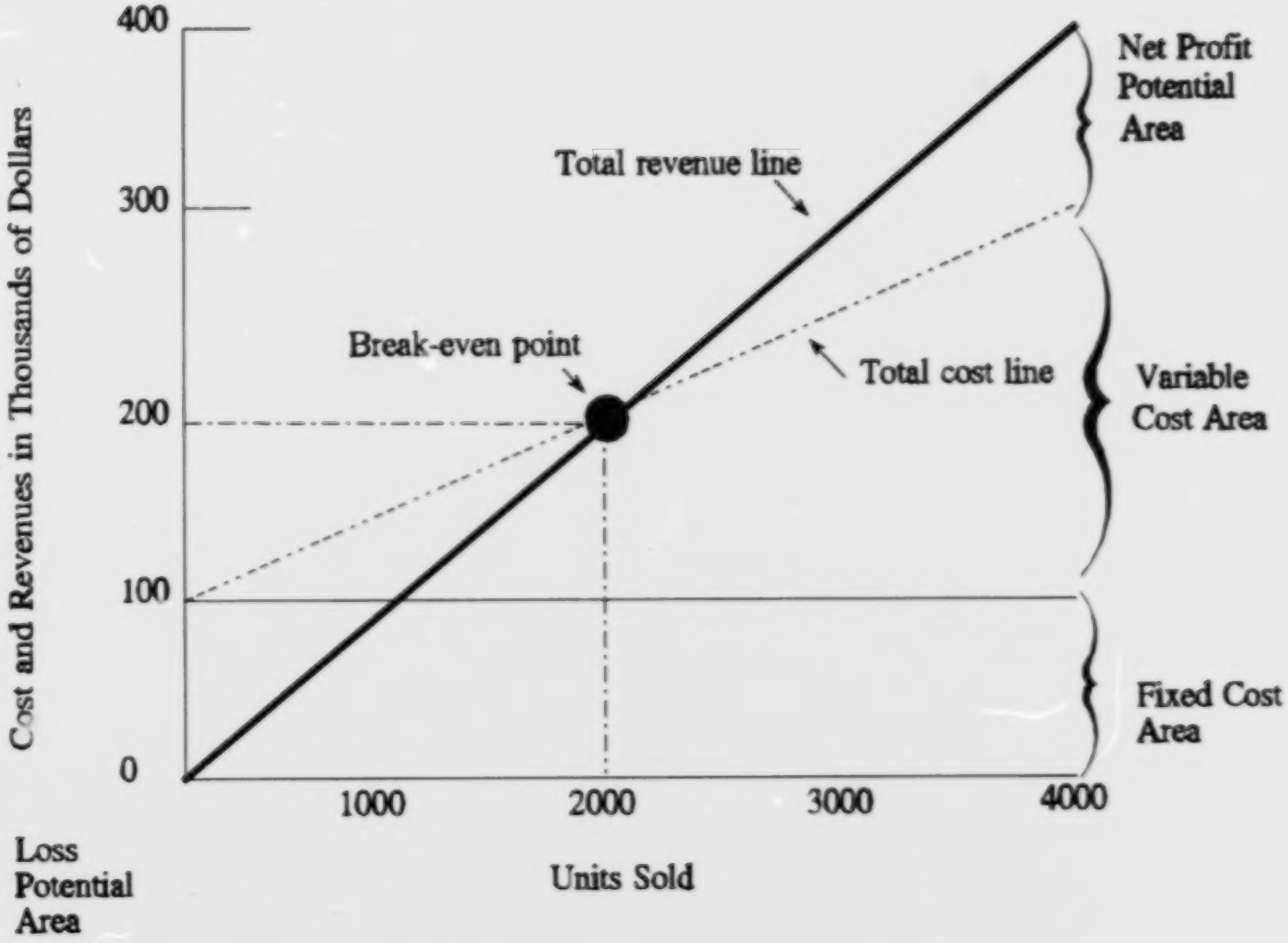

Figure 14. Break-even curve

accounting system, you will find it especially useful to take the additional steps needed to analyze and control your finances via this additional software.

Programs of this type are essentially electronic versions of the traditional accountants paper rows-and-columns spreadsheets. These rows and columns are displayed on the computer viewing screen. You may insert any type of business data as well as formulas that relate these data items to one another into specific locations in the work area.

For example, when transferring a profit and loss statement into a computer version, you would record the income and expense items directly into the spreadsheet as written, while totals and subtotals would be entered as formulas instructing the computer to sum up specified areas of the worksheet. When you change a data item such as salary expense, all other totals and ratios that depend on the value of that item will automatically change as well.

This fact gives you the opportunity to examine many alternative scenarios in sales, operating costs, accounts receivable collection rates, interest rates, and so forth.

A basic example of how such software can be used to record and analyze financial data is illustrated as follows:

Alice sells apple pies from her kitchen. She sells them mostly to restaurants that buy them by the dozens each week. Alice wants to forecast sales under a variety of circumstances for the next few months.

To start, she enters some basic information about her pie-making business—essentially, an income statement for 1 month. She knows that in a typical month she sells 650 pies at an average price of $5 per pie. She then details on the computer the costs of doing business: flour, sugar, apples, butter; her two part-time assistants, who earn $3 an hour each; her delivery costs, and the ads she places in several trade journals. On the bottom line is her net profit of $1.90 per pie, or $1,235 for the month.

So far, it has taken Alice about 5 minutes to plug in the various components and to describe the formula for calculating net profit: the variables (the pie ingredients and delivery costs), which change with the number of pies sold, and the constants (the ads and her staff), which she must pay whether or not she sells any pies. In business, however, nothing is certain; prices fluctuate and business gets better or worse. For Alice, what if a bad apple harvest raises the price of her fruit by 60 percent? What if the number of pies sold were to double, but her staff were given raises to $3.75 an hour? What if advertising rate increased and the bottom dropped out of the apple-pie market?

To answer such "what if" questions, Alice merely changes the related piece of data—the price of apples, for example, or the number of pies sold. In seconds, the software program recalculates all the costs and computes a new net profit.

Whereas, none of this may seem revolutionary for calculating a month's worth of apple pies, but consider other "what if" scenarios facing the typical modern business. The apple-pie example included a dozen variables and a half-dozen assumptions. The beauty of the spreadsheet program is that it can work with dozens of variables and hundreds of assumptions. The results include a

10-year income-and-cashflow statement for a proposed shopping mall; a 3-year profit and loss statement for a retail store selling hundreds of items; a cost-efficiency study of a ten-person firm, or just about any other projections or analyses that you can dream up.

One of the great productivity gains you can make is to ensure that your data from other computerized components of your business can be directly captured by your "spreadsheet" program without having to re-enter the data by hand. Many software packages are equipped with several "templates" that contain predeveloped worksheets and formulas to cut the training time and labor necessary to fully utilize the program in financial analysis.

Other types of computer programs are available for financial analysis and management. Programs pertaining to productivity, payroll, investments, inventory control, ratio analysis, and so forth, may be obtained from commercial sources. A potential user of such programs should contact a reputable computer supplier; review computer periodicals and texts; or consult with business owners using computers in similar businesses.

There are four cost areas that you should consider when planning the conversion to a computerized operation:

1. Hardware includes the computer, video monitors, printers, electronic cash-registers, bar-code scanners, etc.

2. Software includes general purpose programs such as electronic spreadsheet, word processing, database management, and specialized programs that you purchase to perform one function for your business such as general ledger, accounts receivable, payroll. Software costs can easily equal your hardware costs for the first year for a basic system including word processing, spreadsheet, accounting package, inventory management, and cost estimation.

3. The training and "downtime" required to learn new skills required to operate the automated systems. Plan to spend at least as much as your software costs to train your staff fully.

4. Costs associated with integrating the various separate hardware and software elements into a working system, customizing general purpose software to your specific needs should also be considered. Unless you are extremely skilled in the computer programming area, this will probably be your biggest first year cost area.

The real cost savings in computer operations often occur when you find ways to speed up and improve such operational aspects of your business as customer service, production, and quality as well as to obtain the additional financial analysis power.

ACTIVITIES

The following activities are designed to help you apply what you have learned in this unit.

INDIVIDUAL ACTIVITY

The following cost structure of the "Johnson Business" was obtained from last year's profit-and-loss statement:

Selling Price = $100 per unit
Variable Costs = $60 per unit

Sales	$100,000
Fixed Costs	$ 20,000
Variable Costs	$ 60,000
Profit	$ 20,000

Using a piece of graph paper:

(a) plot (and identify) the sales line.
(b) plot (and identify) the "total cost" line.

By inspection of the break-even chart, and by calculation determine:

(c) Variable cost per dollar of sales: $_____
(d) Break-even point (units): $_____
(e) Profit (or loss) at $50,000 sales volume: $_____
(f) Profit at $80,000 sales volume: $_____
(g) Profit at $100,000 sales volume: $_____
(h) Profit at $120,000 sales volume: $_____

GROUP ACTIVITIES

A.

In teams of four to six, prepare a list of commonly used business ratios. Ask your instructor to help you identify a successful business manager or accountant in your community who uses ratios. Interview this person to obtain information about which ratios are used. Also ask him or her these questions: What data is required to compute the ratios?, How are the ratios used in analyzing the business operations?, What business planning or follow-up activities take place in the business as the result of ratio analysis?, and Are such ratios prepared with computer assistance? Report on your findings to the rest of your class.

B.

Continue working in groups. Secure financial statements from a local small business. Compute liquidity, solvency, funds management, and profitability ratios. Search industry average ratios at your local library and compare your financial analysis against average ratios. Assess the performance picture of the business.

CASE STUDY

Read and analyze the following case study. On a separate piece of paper, number from 1 to 6. Write each ratio on this paper as it is computed. Betty Jones is opening "Jones Gift Shop." The shop, located in a New Jersey resort town, is a seasonal business open only in the summer. The store site is rented. Betty selected the site herself. She then became a part of a national franchise organization by paying the one-time membership fee of $1,000 plus yearly dues of $100. The organization provides advertising and other management assistance services.

Betty began her business venture with $10,000. She made several trips to see a friend experienced in business. On her first trip she presents her friend with the following information.

1. Owner's cash investment	$ 6,000
2. Credit from suppliers	$ 3,000
3. Note (payable to an individual or to a bank)	$ 1,000
TOTAL	$10,000

Pretend that you are this friend, and that you must compute the necessary ratios for Betty. Refer to the text of this unit for the ratios you need. Using this information, you develop the projected balance sheet as shown in Figure 2, which indicates that only $4,000 of the original $10,000 is to go for inventory. The remaining $6,000 is earmarked for working capital, equipment, and the franchise fee.

During this first meeting, Betty begins to thin picture of the shop as of a specific date. Before she leaves, you construct ratios based on the opening day's figures. The current ratio is greater than two to one (which is the commonly accepted minimum). You compute this ratio to be _____.

The acid-test ratio, a ratio that reflects Jones' ability to pay current debts, is a favorable one _____. You also calculate a debt-to-tangible-net-worth ratio by measuring the $4,000 debt against a tangible net worth of $5,000 ($6,000 minus the $1,000 franchise fee). After allowing for intangible assets, you come up with a _____ ratio. This, too, is a favorable ratio. It indicates that Jones has more invested in her business than her creditors do.

During this first meeting, you also discuss the income Betty hopes to earn. Betty recognizes the importance of establishing financial goals. "To do this we should prepare a profit and loss statement for the shop," you advise. You explain that a projected profit and loss statement also does the following:

- Sets goals and timetables for reaching goals
- Describes anticipated trends in profits or inventory turnover
- Relates the profits of the business to the investment in the business
- Becomes a base or benchmark which, when compared to actual figures, can be used to adjust projections

You complete the 3-year profit and loss projection for the gift shop as shown in Figure 3. You meet with Betty again and you discuss the projection, referring at times to the projected balance sheet (Figure 2) developed during the first meeting.

You compute the current ratio at the end of the second year to be _____. The

quick ratio or ability to pay all current debts has changed to, and the debt to net worth ratio has moved to _____. Profits are being invested in inventory and the margin or average markup has continued to average over 50 percent.

At the end of the third year, the business appears to be prospering. The owner's original investment has now increased to $11,900 from $6,000. This reflects the profits from 3 years of operation. In Figure 3 note that first-year sales are estimated to be $22,500, which increased to $30,000 in the second year and $34,000 in the third year. This projected income statement is very important, because it serves as a plan against which actual income and expenses can be compared.

Since the gift store business has a relatively high markup (over 50 percent), it will probably have a low inventory turnover rate. High-markup businesses are usually characterized by low turnover of inventory, as the higher-priced merchandise usually sells at a low rate. Average inventory turnover is computed by using this formula:

$$\frac{\text{Gross Sales}}{\text{Average Inventory}} \qquad \frac{\$22{,}500}{\$4{,}000 + \$5{,}000/2}$$

Since the average inventory for the year is $4,500, based on annual sales of $22,500, the inventory is turning over or being replaced on the average of only _____ times a year. You prepared this projection knowing that most businesses characterized by low inventory turnover are often plagued by inventory obsolescence due to style or fad changes. Since the business is a gift store, you advise Betty to keep this in mind when planning inventory. "Stock those items that may decline in value below the cost paid for them at a minimum. Since one of your objectives in financial planning is control over the amount of debt and its relationship with the total assets of the business," you advise, "the importance of arriving at both the **current ratio** and debt-to-net-worth ratios quickly cannot be underemphasized."

Figure 2 showed that at the end of the second year the business had expanded somewhat, since assets now total $12,900. The current ratio has improved because first-year profits of $1,400 have been put back into the business.

Betty computes her net profit after taxes as a percentage of equity. By doing this, she learns how much her investment is making. She decides that if this rate of return ever drops to a point where she questions her reasons for being in her business, she will ask you to help her do another analysis of the profit and loss items.

DISCUSSION QUESTION

Complete the ratios for the second and third years of Betty's business and compare them to published ratios for small gift shops found in Dun and Bradstreet or the Robert Morris statement studies. What suggestions would you make based upon these findings?

ASSESSMENT

Read the following questions to check your knowledge of the topics presented in this unit. When you feel prepared, ask your instructor to assess your competency on them.

1. List the key responsibilities of the entrepreneur in financial management and defend your selection of the most critical responsibility.

2. Identify which advisors you would select prior to opening your business and which you might add by the third year of operations.

3. Explain what can happen if cashflow is not managed properly.

4. Identify several financial control procedures that any business should employ.

5. Describe what patterns you would look for in a monthly cashflow statement extending over a year's operations?

6. Identify and describe several "trouble" spots in financial management that most business owners face.

7. Describe how to prepare an owner's equity financial statement.

8. Explain the utility of common financial management ratios applicable to a small business.

9. Describe how you would compute a break-even point from the information provided in an income statement.

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PACE

Unit 1. Your Potential as An Entrepreneur
Unit 2. The Nature of the Small Business
Unit 3. Business Opportunities
Unit 4. Global Markets
Unit 5. The Business Plan
Unit 6. Help for the Entrepreneur
Unit 7. Types of Ownership
Unit 8. Marketing Analysis
Unit 9. Location
Unit 10. Pricing Strategy
Unit 11. Financing the Business
Unit 12. Legal Issues
Unit 13. Business Management
Unit 14. Human Resources
Unit 15. Promotion
Unit 16. Selling
Unit 17. Record Keeping
Unit 18. Financial Analysis
Unit 19. Customer Credit
Unit 20. Risk Management
⇨ Unit 21. Operations
Resource Guide
Instructor's Guide

Units on the above entrepreneurship topics are available at the following levels:

* Level 1 helps you understand the creation and operation of a business
* Level 2 prepares you to plan for a business in your future
* Level 3 guides you in starting and managing your own business